MICHIGAN FARMER.

Devoted to Agriculture, Horticulture, and Domestic and Rural Affairs.

NEW Perfect Agriculture is the foundation of all Trade and Industry.--Liebig. SERIES.

VOL. VI. DETROIT, MARCH 15, 1848. NO. 6.

"Woodman, spare that Tree."

From the House Wife's Department of the Ohio Cultivator, Edited by Mrs, Bateham, wife of the Editor of that Journal, we take the following graphic editorial effusion. The eloquence of its plaintive, sentimental strains, must meet a response in every heart, not totally dead, alike to the beauties of nature, and the claims of humanity, to say nothing of the rights and immunities of the mute part of creation, whose grievances no words can utter.

Oh! spare that tree! cut it not down! Years, aye, centuries before thou saw'st the day, it was planted there, and every year it has arrayed itself in its green mantle, and put it off again with none of thine assistance. And now it freely offers thee a screen from the noontide sun, a shelter from the rain, and a barrier to break the force of the wintry blasts which assail thy dwelling. It will be like a glittering casket of gems when icy winter is abroad, and at all seasons gratify the idea of the grand and the beautiful, which the God of nature has implanted in every human mind.

And would'st thou now hack it down? Oh ruthless destroyer! How canst thou so unthinkingly do what thy whole lifetime cannot undo! Shouldst thou now plant other trees upon this very spot, they will be but saplings compared with these majestic ones when thou diest. Besides, what a miserable apology for nature would be thy stiff, formal rows. Oh, how beautiful this world might be if we would but study nature and take pattern from her example.

Why is that log cottage nestling among the hills, the, liveliest, most romantic, and most frequented spot in all this region? The answer is easy. In its arrangement nature was umpire. The greedy axe was not suffered to try its keen edge upon those grand old oaks, and maples. and ever verdant cedars. Art too has been there, and industry is everywhere displayed in the clean grassy park, the clustering vines, the choicest shrubs and plants, and the rarest birds and animals. But who does not acknowledge the charm to lie in those majestic trees which here and there and every where around shade hill top and valley, or intertwine their luxuriant branches over that lovely stream.

And, Woodman, spare not *that* tree only, which will adorn thy cottage, underneath which thou shalt rest in the interval of thy daily toil, and in whose shade thy children may gambol the live-long day; but stay thine hand from those few which may cluster together in the corner of thy field. Thy flocks and herds will look their gratitude, though they may not speak.

Ah! there is a sweet cluster of young trees on the hill-side yonder. Go not near them with thy destroying weapon, lest thou be branded as one in whom there dwells no appreciation of nature's beauty. There too, is a lovely stream winding through the valley. Pray leave a row of willows and sycamores all along its banks. If thou canst not appreciate and admire its romantic loveliness, there are thousands who can, and their heart-felt gratitude ought to be to thee an abundant compensation.

But if it has so happened that in thine all devasting moods, thou hast made a clean sweep of all nature's monuments, delay not to atone for thine error. Planting time will soon arrive, hasten to the borders of the forest, bring from thence thrifty young trees, and plant the borders of thy fields, thy streams, and around thy cottage. Hide not entirely its front, but scatter thy munificence all abroad; plant not in straight rows, but in little social groups, and remember they will grow while thou sleepest, and if thou livest not to enjoy their refreshing shade, consider that thou owest this to future generations for not having spared of nature's own planting when it was in thy power to do so.

Timely Hints on Gardening.

From Landreth's Rural Register, 1848.

A hot-bed for advancing tender vegetables is a treasure to every country resident, and by no means an expensive one. As this month draws to a termination, early cabbage, tomatoes, egg-plants, peppers, &c., may be sown in the hot-bed which will greatly expedite their maturity. If it be formed adjacent to the dwelling, air, water, &c., may be given as required, in the necessary absence of the farmer and his hands, by the females of the family, who almost universally take pleasure in gardening—indeed were it not for their provident attention, how many families would be without a garden vegetable; to their shame be it said, one may go from farm to farm, the property of men who till their own lands, and are comparatively independent, but who have neither "vine nor fig tree"—they have "no time to bestow on such trifles, unconscious, it would seem, of the amount of comfort missed by a disregard to trifles, to say nothing

of the kindly influence they exert. We could point to some farmers and men of moderate means too, who whilst their lands bear evidence of care, their fences in order, outhouses yearly white-washed, fruit tress pruned, hedges trimmed, gates which require no propping to keep close or open, so accuately are they hanged, and who are never behind their neighbors at seed-time or harvest, whose garden is an object of special care; who are not content with a scanty or uncertain supply of vegetables, but have always at command for daily use, and unexpected visitors, all that the season yields; besides this, the plat of grass around their unpretending homes is kept neatly mown, whilst the small but choice assortment of evergreens, shrubs, and hardy flowers, gives cheerful tone, and make their homestead the seat of pleasure, as it is one of plenty. In addition to all this, when the annual account is balanced and the charge made for every hour devoted to such objects, the pocket is found to be the gainer. Such we could desire to see the condition of every farmer's homestead, and such it would be did they properly appreciate their own importance to society, and educate their sons and daughters; there would then be diffused around them more of the comforts and refinements of of life, and the "country cousin," now sometimes jeeringly referred to, would stand in his proper place, on the top round of the social ladder. Perhaps some one, who, like the gourd of of Jonas, has sprung up in a night, and is doomed to wither almost as rapidly, may give a contemptuous smile at the idea thus expressed, that labor, honest, useful labor, and refinement, are compatible; the error is with himself; the refinement we advocate is of the mind; the capacity to enjoy nature's delightful handi-work, the expanding flower, the unbrageous tree, the glorious splendor of an American sunset, and the thousand ever-varying beauties by which we are surrounded.

Farming and Reading.—Do you take and read an Agricultural paper? Strange that a farmer, or planter, should think of doing without one. The merchant surrounds himself with his shipping lists, price currents, and all the means that can communicate information and ensure success; the lawyer's shelves are loaded with law journals, law reports,, law commentaries, and law precedents, for he is sensible without understanding what others have done, he, cannot hope for triumph at the bar; so with the other professions, they must and do read, if they hope for eminence or usefulness. All are anxious to understand their own business, the farmer excepted and too many of these are content to follow on in the beaten path, never reading, scarcely thinking, and showing no anxiety to know what science is doing for them, and what discoveries and improvements are making to accelerate their progress. No man needs extensive, varied knowledge, more than the farmer; none can turn it to more profitable account.—The whole growth of a plant from the germination of the seed to the ripening of the fruit, is purely a chemical process, and one that may be understood and known. The farmer is admirably situated to study and to interrogate nature. Let him read, observe, compare, reflect, and practice accordingly.—Never act without system, nor do a thing because others have done it.—*Cult. Almanac.*

From the Boston Cultivator.

Agricultural Science.

In a former number I observed there was a most intimate connection subsisting between the dead earth, the living plant, and the moving animal.

Take a quantity of good soil for our cultivated crops, and burn it in the fire, its color will change, and it will diminish in weight. A part of it burns away, but the greater portion resists the action of the fire, and remains behind.

Take a plant of any kind, and put it in the fire, and it will nearly disapear, but a small quantity of ash will remain, which the fire does not affect. Do the same with the bone, or flesh of an animal and the result will be the same. It will burn like the plant, and like it will leave something behind which defies the action of the fire.—Thus the soil, the plant, and the animal, alike consist of two kinds of matter; one which burns away, or is combustible—another, which does not burn away, or is incombustible. To the former, chemists give the name of *organic*—to the latter, that of *inorganic* matter.

In the soil, however the organic matter, rarely exceeds one-tenth of the whole weight and is usually considerably less, while in the plant and the animal it is rarely less, and is usually more than nine-tenths of the whole—that is, more than nine-tenths of the whole weight of a plant or animal, disappears when burned in the fire; it escapes as organic matter.

The mineral constituents of a good soil for our cultivated crops, contain all those inorganic matters named in a former No., viz; potash, soda, lime, &c. The ashes of plants contains *all*, and precisely the same substances—also the ash of the bone and muscle of animals yield the same. The fresh bone when burned, leaves one-half its weight, the fresh muscle (lean meat) not one-hundreth part, yet the small proportion in the muscle is as essential to its healthy existence, as the large quantity in the bone. Thus it will be seen, that the soil furnishes these essentials to the plant, the plant to the animal. And it is by the *extraction* of the mineral or inorganic matters of the soil—those which are found in the ash of burned plants, that our cultivated lands become exhausted, run out; to the

belief in this statement, perhaps, some may dissent, but admiting this as a fact, theory, then, would point out the very great value of the ash of plants for agricultural purposes, and practice confirms the truth of it, yet large numbers of farmers do not seem to be aware of their value, but dispose of them at ten or twelve cents per bushel; such farmers are a saving at the spiggot, and losing at the bung."

Dr. Dana said, "he should not deem it extravagant to say, that a bushel of ashes is equal (for agricultural purposes,) to a cask of lime." "The farmer should burn all brushwood unfit for the kitchen for the ashes." The farmers of Long Island use annually immense quantities of ashes upon their light sandy soils, and the high price they pay for them, both leached and unleached, most conclusively proves the value attached to them there.

Some years since Payson Williams of Fitchburg, raised over 55 bushels of wheat on one acre of highly manured land—but at the time of sowing the wheat, he also, sowed fifty bushels of wood ashes. I could cite numerous other cases, proving their use and worth to the farmer.

Prof. Liebig, says the best manure for a plant is the ashes of the same species of plant—as the grasses of our western country are when burned over in the fall, they are supplied with their *natural* inorganic food. The ashes of the grape vine is the best dressing for the grape vine. In Downing's Jan. number of the Horticulturist, there is, a most valuable editorial of the proper manure for fruit trees. The analysis there given of the ash of the apple, and pear tree must satisfy every one who reads it, that it would be better to burn the trimmings, limbs, &c., of the apple and other fruit trees, and apply the ashes for manuring the trees, than it would to use them for any other purpose.

Cultivation of the Grape.—The ancients extensively cultivated the grape, both for its delicious fruit, and the unrivaled beverage which its juice affords.

The European varieties are numerous, many of which were early brought to this country by emigrants, and have been extensively cultivated. But some of our native varieties are decidedly superior for open culture in Maine to any introduced from the old world.

Among these are the Isabella, Catawba, Bland, Lenior and Ohio, which are recommended by Downing as a selection for a small garden. But for open culture in our climate, the Isabella and Catawba are decidedly preferable, and better adapted than either of the others. The Lenoir, however, is worthy of a trial here. It ripens well in New York, and though of a less size than the Isabella, is thought to be rather superior in flavor, being sweet and excellent. Downing, in remarking upon the qualities of the Isabella grape, says: "Its great vigor, hardiness, and productiveness with the least possible care, have caused it to be widely disseminated A vine growing here has borne twelve bushels of grapes in a single year. It is perhaps little more hardy and ripens earlier than the Catawba, which renders it valuable at the northern parts of this State, [New York,] or the colder parts of New England. No farmer's garden, however small, should be without this and the Catawba."

There is little difficulty in ripening the Isabella in our climate if upon dry, rich soil, and not in a very exposed situation. The south side of a building is a fine situation for a vine, affording not only a better chance for ripening the fruit, but tastefully trained, with its beautiful foliage, and delicious, clustering fruit, adds a lively charm to the scenery around. Projecting rocks and ledges offer a favorable situation for rearing grapes; the fruit ripening earlier on account of the heat imparted to the rock by day being retained through the night. We have succeeded in ripening grapes in this way about two weeks earlier than those of garden culture. There is yet one other item of credit due, which, with a neat farmer, will not be easily overlooked. It is simply that of converting, in this way, an unsighty place into a beautiful oasis.—*Maine Farmer.* D. T.

Berkshire Hogs.

Our friend Cobb, a part of whose cummunication we published in our last, classes Berkshire hogs among the humbugs of the day, and he is not alone in so doing. Yet, as mankind are prone to rush from one extreme to the other, and as it is very possible that injustice has been done to this branch of the great hog family, it is but fair, that we should hear what can be said in their behalf. To this end we copy the following from the Boston Cultivator.

The Berkshire is rather an old race of English hogs, belonging to the large class, but not so large as some of the still older breeds. What is called the improved Berkshire is probably a cross with the China. It has been regarded as one of the best races in England, distinguished for smallness of bone, early maturity, aptitude to fatten on little food, and hardihood. Although this breed was introduced into this country, and generally disseminated only about 15 or 16 years ago, it has been more extensively propagated than any other race, and by crosses with other breeds it has done much to improve the race of hogs throughout the country. Yet opinions are various as to the utility of this breed. Some condemning them altogether, others ranking them as the very best, while others pursue a medial course, and regard them as highly valuable in forming a cross with other breeds.

Some of the best breeds of hogs now in this country, are compounded in part of this breed. Among these a cross of the Berkshire and Grass breed in New York, many of which are driven to the Brighton market, and are purchased by some farmers in this region, as the best breed that they have ever had. Many of them, in carcase, are brought to this market, annually.

In almost all parts of the country, the Berkshire, or a cross of this breed with some other, are held in higher estimation than in New England. Here they have been generally condemned, and without a fair trial, we believe. In our market they sell at about half a cent on the pound less than other pork. At the discussions on swine, at the Agricultural Meetings, they have been condemned by those who have tried them.

Nothwithstanding the high authorities against them, the opinions of raisers and venders, yet we believe that they have been underrated. One great objection to them is that they have a large proportion of lean meat. This should be set down in their favor, and when those who eat pork act with discretion in making their selection, they will have learned that lean meat is not only the most wholesome, but that it possesses the most *nitrogen* or muscle-forming properties to support the man who takes strong exercise. It replenishes the muscle which he wears away by hard labor.

In reply to these remarks, it may be said that we usually have too much nutriment or *nitrogen* in our food. In answer to this we would say that if our food is usually too nutritious, we should fill the stomach in part with fruit, potatoes, turneps, and other vegetables, that poseses but little nutriment, not with greasy indigestible pork, filling the system with humors, and laying the foundation for numerous diseases. He who labors hard, needs nutricious food, something more substantial than fat pork ; something that will renovate his limbs that are constantly wearing away.

When the science of anatomya nd physiology and the general science of health are well understood, good healthy, well conditioned animals will be prized higher for food than those that are composed mostly of fat, which give not strength to the system, but engender disease.

One reason that the reputation of the Berkshire is so low, in some parts of the country, is the injurious (this is too mild a term) course of the propagators and venders of this race, in selling a mere scrub, or runt of the litter for 10 dollars, as a valuable Berkshire, the type of his race. No race of animals, however high it may rank, or unexceptionable it may be, can sustain itself under such a course of management.

Illinois Pigs.—*More about Berkshires.*—We noticed not long since the wonderful improvement in pigs which has taken place in Michigan within the past few years. The Prairie Farmer speaks of a like improvement in Illinois. In 1843, it says, a two hundred hog was about an average. Now the average stands at about three hundred. Among the causes which have contributed to this result, it says:

One of them is improvement in breed. The great amount of noise, made a few years ago about the breeds of swine, served to scatter all over the West, animals of improved blood ; and the swine is so prolific, that these animals have become almost universally diffused. The principal breeds scattered about, were first and most generally, the different families of the Berkshire; next some Irish Graziers, Sussex, and Liecestershire. and a few others.

It is true that these animals did not, in all cases, in their new condition, and with the various treatment they received, meet the expectations of their purchasers. But they still accomplished substantially the benefits desired. This they did frequently by being crossed with other breeds ; thus giving energy by new blood to an otherwise thriftless progeny. They also set before the eyes of every man, beautiful outward models of the swine, and disposed him to aim for that model in his future breeding. So that go where you will, in the Western States, among thriving, enterprising farmers, and you will find good swine, so much superior to the animals kept before the Berkshire mania, that if these old long snouted, coarse haired, and ungainly savages, were now produced, it would hardly be believed that they ever had an existence among us.

From the Farmers Cabinet.

Effect of Different Coloured Lights upon Plants.

Mr. Editor.—I take the following article from the Scientific American—an excellent paper published in the city of New York.

"The warmth of the sun has comparatively little to do with the specific action of his rays on the chemical functions of the plant, which is illustrated by the experiments of Mr. Hunt of the Royal Agricultural Society of England, on the effect of the rays of light of different colours on the growing plant. He sowed cress seed, and exposed different portions of the soil in which the seeds were germinating, to the action of the red, yellow, green, and blue rays, which were transmitted by equal thicknesses of solutions of these different colours. 'After ten days there was, under the blue fluid, a crop of cress of as bright a green, as any which grew in full light, and far more abundant. The crop was scanty under the green fluid, and of a pale green unhealthy colour. Under the yellow solution only two or three plants appeared, but less pale than those under the green ; while be-

neath the red a few more plants came up than under the yellow, though they were also of an unhealthy colour. The red and blue colours being now mutaally transferred, the crop formerly beneath the blue, in a few days appeared blighted, while on the patch previously exposed to the red, some additional plants sprang up.'

"Besides the rays of heat and of light, the sun-beam contains what have been called chemical rays, not distinguishable to our senses, but capable of being recognized by the chemical effects they produce. These rays appear to differ in kind, as the rays of different coloured lights do. It is to the action of these chemical rays on the leaf, associated with the blue light of the solar beam, that the chemical influence of the sun on the growth of the plant is to be ascribed, by the decomposition of the carbonic acid absorbed from the air by the leaf."

It will be seen by the above account, that the blue rays contribute very greatly to the growth of plants. Judging from these results, if we place such plants as we desire to cultivate, under glass—as in hot-houses, &c.,—under such glasses as have a blue tinge, we may propagate them more rapidly, certainly, and productively, than in the usual manner.

The use of blue glass, or common glass painted blue, will, if used with good taste, add materially to the beauty of a building in which exotic plants are cultivated, as many varieties of blue are admired by most persons.

Soiling.

But why talk about soiling, (that is, feeding stock green crops in summer,) in a country, where, in most parts, grass grows wild in the woods, in great abundance? Because, in the the first place, more time is spent in looking up cattle which thus run at large, than would pay for fencing, clearing, and breaking the land, and raising green crops sufficient to feed them —to say nothing of the occasional loss of an ox, or a cow, or of young stock by straying away beyond recovery—and to say nothing of the almost worthlessness of a cow for dairy purposes, or any other purpose, after mid-summer, and her comparative unproductiveness in milk even before that time—and leaving out of the account too the very important advantages of soiling, enumerated in the following extract from the N. Y. Agricultural Transactions.

SOILING.—*By R. L. Pell, Pelham Farm Ulster County.*

For the last four years it has been my constant practice to soil, not only cows, but hogs, oxen, and horses. My yards are large, enclosed by stone walls and so arranged as to collect all the manure in the centre. There is a pump and trough convenient to it, and open sheds where the animals may lie and ruminate at pleasure. Three times each day, at stated hours, green crops are cut and brought to them, such as clover and timothy grass, green oats, green corn stalks, green buckwheat in bloom, root tops, &c. Occasionally, by way of change dry hay and straw are cut up and given to them mixed with sufficient wheat bran to induce them to relish it. The stock are never permitted to waste anything; that left by the cows is given to the horses, as horses will eat after cows, and vice versa, cows after horses; but they will not eat after each other. The leavings of the horses is then fed to the hogs. The animals are enabled to consume their quantum in about thirty minutes, when they immediately lie down to rest, take on fat, and secrete milk. If pastured, they require many hours to obtain the requisite food, besides laboring diligently, which has a tendency to prevent the secretions, either of fat or milk. They have but little time to ruminate; and when driven to and from pasture, run wildly about the field; are whipped, stoned, and chased by dogs, which causes them to become feverish, and as a result, contract their milk vessels.

Salt should always be within reach of the animals in the yard, as it is indispensable to keep the organs of digestion active, increase the milk and growth of fat; and it much improves the the quality of the flesh.

I have found, by actual experiment, that cows when fed in the yard at regular periods, with a change of food, not allowing them at any time to be overfed, and supplied at all times with an abundance of water, have doubled their milk; that is to say, the same cows that were one year depastured gave, when confined, twice the quantity of milk, and of a much richer quality. When depastured, I did not obtain a particle of manure; it was dropped upon the soil, certainly, but with very little advantage to it; nearly all the volatile gases were immediately given to the atmosphere, and many of its other valuable properties were withdrawn from it by flies so that the soil received but little benefit.

One reason that the excrement of the horse is so much richer and more valuable than that of the cow is, that the horse is fed on farinaceous matter, corn, oats, &c., which the cow is not; and so likewise is that of man, because he partakes of a great variety of food, both animal and vegetable.

How to use Ashes and Muck.—Says a correspondent of the Boston Cultivator: Some may ask, what is the best method of using ashes, I think as a general thing, it is better to mix ashes in compost, than to sow broadcast. If mixed with peat or swamp muck, they will neutralize the acidity of the muck, and much sooner prepare it for use—or they may be composted with muck and manure—but never should be mixed with clear manure. If designed to apply

to a grain crop, they should be composted with a sandy loam, the longer before they are used in this way the better, provided they are defended from the rains and snows.

The compost should not be spread till after the land is plowed—as it will be buried sufficiently deep for the grain crop by the harrow.

L. BARTLETT.

February, 1st, 1848.

Quince Stocks for Pears.

A great advantage in the use of the quince stock, is early productiveness, only two or three years being required from the time of grafting before the tree commences bearing. Another, is the little room they occupy, from the character of dwarfs which they assume, and they may be planted within ten feet of each other.—Hence they are admirably adapted to limited gardens, where it is desired to cultivate for crops the intervening soil; for branching within a foot of the ground, and rising only eight or ten feet high they shade the surface and exhaust the earth but slightly. They, however, need a rich soil and good cultivation, and are hence unfit for the grassy orchard, where such treatment is not given.

All pears, it is well known, do not succeed equally well when treated in this way. A large portion of the varieties appear to be but little changed in size and quality; but a few are vastly improved, and on the other hand some do not succeed at all, when grafted or budded directly upon the quince.

The following are greatly improved: The Duchesse d' Angouleme, Beurre Diel, Beurre d' Aremberg, the Glout Morceau, Easter Beurre, the *Wilkinson*, the *Fortunes*, the Jargonelle Passe Colmar Louise Bonne, White Doyenne, the Golden Beurre of Bilboa, Beurre d' Amalis, Beurre d' Ananas, Beurre de Capiaumont, Bonchretien, Williams, Chaumontelie, Citron des Garmes, Colmar, Colmar d' Aremberg, Comte de Lamy, Crassane, Doyenne Gris, Doyenne White, Duchesse d' Orleans, Forrelle, or Trout Pear, Franc Real, Summer, Gratioli of Jersey, King Edwards.

It is hardly necessary in this article, to remark that the common quince is of too slow growth for pear stocks; the variety known as the Portugal Quince, or some other equally vigorous, being necessary.—*J. J. Thomas in Albany Cultivator.*

Transplanting.—In regard to the extent to which the tops of trees for transplanting, should be pruned, the Prairie Farmer says:

We are content to leave it to any man of sense if a tree thus despoiled of its roots should not have its top pruned away to correspond with this loss. The question how much pruning is required can be easily guessed at in this light.

Culture of the Cherry Tree at the West.—BY F. R. ELLIOTT.

While during the past few years much has been written respecting the "Pear Tree Blight," little has been said regarding the cause of cracking in the bark, and the exudation of sap, resulting in the death of the Cherry tree.

An examination of thousands of trees, both at the East as well as the West, during the past year, induced the writer to go to (as he thinks) the fountain head for the cause. This fountain head is the excessive forced growth of the tree while young, even many times before leaving the seed bed, and almost always before leaving the nursery. Rarely do we find an instance of the bark cracking, &c., in a cherry tree, that has sprung from seed and grown without removal in some neglected corner; or in a tree transplanted from a *farmer's* nursery (all neglected) and placed without care in turf ground.

Large trees over fifty years of age, from whose fruit the writer feasted years agone, are standing in Connecticut as vigorous and healthy as ever—while within one mile are numerous trees dying yearly in the same wayas at the West viz: by cracking of bark and exudation of sap. At various places in New York similar evidence was seen. These large healthy trees, however, have always stood in turf ground, while all the trees seen by the writer with evidence of death upon them, were grown with infinite care to the production of shoots from four to six feet in a single season. These examples therefore at the East were satisfactory that it was not because the West was unsuited to the growth and health of the cherry tree, but that the trees supplied the western planters were grown too vigorously, and nursed too much, before they received them.

A hint to Farmers.—We would also suggest to the consideration of farmers to consider whether they are represented in Congress. The great majority of the people of the United States are engaged in agriculture, and the majority of the members of Congress should be from this profession. Now we would inquire how many farmers are in Congress? We mean genuine farmers, not those who assume the name because *dignity* and *honor* are attached to the profession, and the title may be a passport to preferment, but farmers who bear the heat and burthen of the day, & rely upon their industry for support. Were farmers true to their own interests, they themselves would constitute a large majority in all the legislative halls throughout the country, and the interest of the farmer would be regarded, though he might thoughtlessly repose under his vines, and fruit tress. There would be no need of a remonstrance. But now the case is far different from what it should be, and as farmers are not fully represented, they must ask other professions to look to their interests.—*Bos. Cult.*

Agriculture the Best and Safest Business.—General Dearborn, in a lecture on this subject, states that from careful observation made by him during a long course of years, and while an officer in the Custom House at Boston, he had ascertained that ninety-seven out of every one hundred merchants fail or die insolvent. Being in the Custom House, he had great opportunity of seeing them rise and fall. A few years would sweep a generation of them into bankrupcy, and an entire new list of names would appear on the books. He took pains to inquire as to the results of the observation of other persons of age and experience, and found his estimate of facts fully confirmed by them. The recommendation, therefore, which followed this view of mercantile ruin, was the selection of agricultural pursuits for children, rather than those of commerce. Such intelligence from such a source, it might be supposed, would check the course so prevalent with many, of putting their sons behind the merchant's counter.

Worms in the Heads of Sheep.

Symptoms.—They do not generally appear till towards spring, at which time they may be discovered by a sickly countenance and loss of flesh, notwithstanding the best of keeping; sometimes running at the nose, (though not always,) and snorting, as if trying to blow something from the head. In some cases, the sheep suddenly spring about in a wild, frantic manner and drop down dead. When they do not die in this manner, they become so poor that their wool stops growing and falls off, and they give little or no milk. Sometimes they linger, pining away, and do not die till June or July.

Preventive.—Smear the noses of sheep with tar frequently, from the coming until the departure of the fly. To be sure, begin in July, and continue the use of tar till October. It may be applied directly to the noses of sheep, but the better way is to lay it in a trough or on a board, and strew salt on it, and the sheep, in eating the salt, will smirch their noses pretty well themselves. Give them salt in this way frequently, or keep a supply by them. Tar is also a specific against other diseases.

Salt a Good Manure for Celery.—A root and a stalk of Celery, weighing 14 pounds without the leaves, and measuring 14 inches in circumference, was exhibited at a recent meeting of the Cincinnati Horticultural Society. It was exhibited to show the value of salt as a manure for this plant, the gentleman who raised the article having made the experiment of treating a portion of his plants in the ordinary way, and manuring a part of them with salt. The former were of ordinary size and quality, the latter being both larger and finer flavor, of which the specimen exhibited was an exemplification.

Strawberry Runners.—I beg to give my opinion in favour of cutting the runners off strawberry plants. For this purpose I make a new plantation, in which the plants were placed eighteen inches apart in rows, and the rows themselves two feet asunder. I have never allowed a runner to exceed half a foot in length upon any of these, and the consequence has been that the plants have become strong and bushy. The crop this season has been abundant and the fruit individually large in size. While my neighbors' plants during winter seemed to be creeping back whence they came, not being able to bear the withering and biting blast of the season, mine stood up full of freshness and vigour, and ready to start into growth at the first approach of spring.

Artesian Wells.—The deepest bored well in the world is at Mondorf; it is 2200 feet deep and still progressing; its waters are 95° Fahrenheit—within 3 degrees of blood heat. The well of Grenelle, at Paris, is 1794 feet deep, mostly through a chalk bed. Its temperature is 72° F. It discharges 20 barrels of water per minute, and rises 50 feet above the surface. It is difficult to account for the rise of the water in these bored wells; inclined strata of rocks having a scource higher than the issue, is generally supposed to be the cause; but water is as readily procured on high as low lands. Condensation of steam, and the great prssure from central heat, has also been sugested.

Potato Rot.—The Mercer seems most affected by the rot, the Pink Eyes next, and the Merinos next, and the June potatoes least, or not at all—probably ripening fully before the advent of the disease.

Mahogany is becoming so cheap in England that ship builders are using it instead of teak wood. The reduction in price is caused by the extensive use of other woods, as black walnut, oak, &c., in the manufacture of cabinet ware.

Minor Morals for Married People.—"The last word" is the most dangerous of infernal machines. Husband and wife should no more fight to get it than they would struggle for the possession of a lighted bombshell. Married people should study each other's weak points, as skaters look out for the weak parts of the ice, in order to keep off them.

Incombustible White-Wash—Pass fine freshly-slacked lime through a fine sieve, and to six quarts of the fine pulverized lime thus obtained add one quart of the purest salt, and one gallon of water, and boil the mixture, and skim it clean. Then to every five gallons of this mixture, add 1 lb. of alum, ½ lb. of copperas, and slowly add ¾ lb. potash, and 4 quarts fine sand. It adheres firmly to wood or brick.

XUM

MICHIGAN FARMER.

WARREN ISHAM, EDITOR.

PUBLISHED SEMI-MONTHLY—TERMS $1 IN ADVANCE—FIVE COPIES FOR $4.

Important to Wool-Growers.

WOOL DEPOT IN DETROIT.

Mr. Isham.—It is well known to the readers of the Farmer, for the past few years, that the establishment of a Wool Depot in this city, after the manner of those at the East, has been regarded by the writer as an object of great importance to the wool-growers of Michigan. It is with much satisfaction, therefore, that I am now able to announce that this object is about to be accomplished, under auspices highly favorable. Mr. Ives, a gentleman who has long been a resident here, and who is well known to the community as a man of integrity and honor, has determined to engage in the enterprize the the ensuing summer. Having spent the early part of his life in the occupation of wool-stapling in England, he is familiarly conversant with the various grades of wool, and is consequently well qualified for the successful management of the contemplated business. It is designed to convert one of the numerous warehouses on our wharves to this purpose.

The plan will soon be spread before the public by advertisement. Meanwhile I communicate this, that farmers may be apprized in season, to anticipate their arrangements for the disposal of the coming clip. All will admit that the difference of from five to ten cents a pound, between selling at a Wool Depot and in the old way, is well worth saving to the producer. H. HURLBUT.

Detroit, March, 8th 1848.

Have you Planted Fruit Trees?

No matter what else you may have done—you may have triumphed over the most formidable difficulties, incident to the settlement of a new country, transformed the wilderness into cultivated fields, perhaps with scanty means at your command, and succeeded, by great exertion, in providing a home for yourself and yours, —still if you have no orchard, no fruit trees upon your premises—we will not say, that all you have done, will go for *nothing*, but we *will* say, that nothing you have accomplished will atone for the the neglect. From year to year you have slumbered over this subject, putting off, and *putting off*, the important work, occasionally, perhaps, arousing yourself up a little, and making a feeble resolution to delay no longer, and then relapsing into a deeper slumber than before, until it may be, that gray hairs are here and there upon you, though you know it not.

Do not say that you have been waiting to get able to buy trees? Who is so poor that he could not have procured a few apple, pear, and quince seeds, or a few stones of the peach, the plum, and the cherry? Who so poor, that he could not have deposited them in the earth, transplanted the young seedlings at the proper time, & bestowed what little attention upon them they required, and then standing aside, have left the bounteous earth to send them up in branching luxuriance all around him? *Who so poor?*

But, profoundly as you have slept, greatly as you have erred, miserably as you have deceived yourself, listen, no, not for a moment, to the whispers which are beginning to fall softly upon your ear, that you have delayed the work until it is now too late. Whence came the whispers which lulled you into apathy, and caused you to delay to the present time, if not from the same source? Cast away from you then the foul suggestion, "make haste, and delay not," to set yourself to the task, and though as a penalty for your neglect, you may not be permitted to enjoy the resulting benefit, yet, when you are gone, there will exist upon earth a memorial, that you did not live for yourself alone.

But do not wait for the seeds to grow. You have no time to lose. Repair, without delay to to some nursery, where you can procure engrafted trees, and with proper attention in transplanting and subsequent culture, you will soon see them bending beneath the precious burden.

And not the farmer only—*every* man, who owns a house and lot, should line his entire premises with fruit-trees and shrubbery, and thus not only provide a supply of choice fruits for family use, but surround his dwelling with tasteful rural scenery, which contributes not a little to the sum total of social enjoyment.

Do you ask where you can go for trees, and be sure to get the kind you are in quest of? We are well aware, that many impositions have been practised by nurserymen, and it is well to have a little circumspection about the matter. There are doubtless many nurseries in the state

that we know nothing of, but the following proprietors of nurseries we do not hesitate to recommend as being worthy of all confidence, viz, Messrs Holmes and Hastings, of this city, Messrs Lays, of Ypsilanti, Daniel Cook Esq., of Jackson, and Chas. Hastings, Esq. ,of Troy. And now is the time procure trees.

Loss in Cutting up Corn.—It is the custom with many farmers, to cut up their corn near the ground with a sickle or knife, about the latter part of September, and remove it from the field, to make room for a crop of wheat. It is the general impression, that corn thus removed after being mostly glazed, will suffer no injury, it being supposed, that the juices already in the stalk, will be sufficient to mature and perfect the kernel. This, however, is a mistake. It appears from experiment, that the injury to the corn by thus cutting up the stalks, is about equal to that which results from the practice of topping the stalks, and for the same reason, viz., a cessation of the functions of the leaves, in which the juices are elaborated. A farmer in Lima, Washtenaw Co., thus cut up and removed the corn from a part of a field about the 20th of September, and harvested the remaining part of the field, in November. The result was, that the corn from the part which was harvested in November, weighed seven pounds to the bushel, (one eighth,) more than that from the part harvested in September. We record this result simply as a matter of fact, and not as an argument to show, that it is an unprofitable business thus to remove corn to make room for wheat, for it may be, for aught we know, very profitable, in many cases, to do so, nothwithstanding the loss in corn.

And still they come.

We hail with heart-felt satisfaction the increasing numbers who are coming forward and enrolling themselves on the list of our correspondents. And just see what the intelligent and enterprising farmers of Michigan have already accomplihsed, by thus "putting their heads together, telling each other what they know, and trying to learn." In our 3d number, a subscriber away down in Berrien Co., asked for information respecting the vine blight, by which he lost all his melons the last year, and forthwith there comes a communication from a farmer in a neighboring county, who had been visited by a similar calamity, and had succeeded in detecting both the cause and remedy. In the same number we think it was, Otisco raised "a hue and cry" against "striped bugs," as being a common nuisance, and lo! a storm of persecution has arisen against them, which bids fair to drive the whole bug family from the American continent. This is certainly a good beginning—to say nothing of the very valuable information contained in the communications of other correspondents. And where is the tiller of the soil, who is so wise that he never meets with difficulties which he cannot surmount, even though he be an adept in his art, and knows many things which others do not know? Let all then, who desire information in relation to any branch of their business, communicate their dfficulties through the Farmer, and we will venture to say, that it will not be long, before the information they seek, will be forth-coming from some of the shrewd farmers of Michigan. And, by the way, those who thus seek information, and are docile, and "try to learn," are the very ones to communicate things which would be useful to others. We neither desire nor expect communications from those who "know enough" already. No, no, they are not the ones to enlighten others. Clouds and darkness are so thick about them, that they cannot see their own ignorance.

☞Our good friend, from whose letter we take the following extract, is assured, that we should be very happy in the opportunity to take him by the hand as a personal acquaintance, and we certainly unite with him in the hope that our present relation to each other as editor and reader, may be permanent. This however is a world of vicissitude. How soon our most cherished and endearing relations may be sundered, none of us can tell. We would say to friend G. let us have some of the results of your experience in farming.

RAISIN, 3d, Mo. (March) 3d, 1848.

FRIEND ISHAM.—In this I enclose my annual subscription for the Michigan Farmer. Of one thing be assured, that I esteem a well conducted Agricultural paper as a great blessing to cummunity. The prejudice against "book farming," has always appeared to me perfectly ridiculous, and can only be the result of ignorance, or want of reflection. That man must certainly entertain a very good conceit of himself, who thinks he has arrived at the "ne plus

ultra" of agricultural knowledge, and that he could receive no useful hints or suggestions from the united experience of the best, and most successful, practical farmers, and horticulturists in the country—who give an account of their views, experiments, success, &c, &c, in those books of which he is so much afraid.

But as this is *our first introduction*, I should be careful not to say so much that thou wilt wish to dodge me at the next corners when we are likely to meet, therefore for the present farewell. Thy friend J. GIBBONS.

P. S. I had not noticed the bluebirds previous to the 21st, ult. but have since been told they were here as early as the 18th, which varies but little from the average time of their appearance for sixteen years past, with the exception of 1835. I find by my memoranda that they did not make their appearence then until the 12th, of the 3d, Mo., (March) at least I did not observe them earlier. That season we had a severe frost during the night of the 20th, of 6th, Mo., (June.) J. G.

For the Michigan Farmer.

The Striped Bug Question.

Mr. Editor:—In a late number of the Farmer, "Otisco" devotes nearly two columns to the *Striped Bug*, without definitely settling upon any expedient by which to make his escape from its ravages. The reading of the article brought to my mind an anecdote related to me sometime since: An old gentleman and his son Billy, had so far succeeded in subduing the coltish propensities of a young horse, as to be able to ride him without fear of having their necks broke, when in order to prevent any latent skittish propensities from developing themselves, the old man told his son Billy to hide himself behind a large stump in the road, and as he rode by to spring up and cry, *boo!* Billy did as he was instructed, and when the old man came along, up he jumps and cries *boo!* with all his might. The horse started and the old gentleman fell to the ground. Billy ran to his aid, when his father gravely remarked—Billy, it was rather too big a boo, for so small a colt. If Otisco will "enclose his plants in a bottomless box, (about ten inches square, made of siding,) with the lower edges lightly pressed in the earth" *and covered at the top with millinet, gauze, or some other loose cheap cotton fabric*, he will find his vines perfectly secure from the attacks of the bug, and more than this, he will find his vines to grow with such an increased vigor and rapidity as will more than compensate him for the expense of his boxes. These, with care, may be kept in use for ten or twelve years. Since adopting this method I have had no trouble of which Otisco complains.

One who has tried it.

[Otisco's article was certainly worth the space it occupied, if it has lead to the developement of the true remedy for the evil in question, to say nothing of the value of his palliatives to those who know of no better way. The dish of humor which he served up at the expense of the bug tribe, was worth something, although a characteristic of that kind should not entitle an article to publication, unless interwoven with solid instruction.—Ed.]

For the Michigan Farmer.

Striped Bugs.—*Still another Remedy.*

Mr. Editor.—I noticed in one of the late numbers of the Farmer remedies recommended for the ravages of striped bugs. The following is my remedy: take char-coal (pit-coal is the best) pulverize it, and put it on the vines, just as they come up, and repeat it as often as it is washed off by the rain or dew. It will facilitate their growth, and will preserve them entirely from the bug. S. M. P.

☞ It is truly marvellous that so few farmers learn to graft, as the process is a very simple one, and above all, as it is a matter into which their interest so largely enters. The following communication lets the reader into all the secrets of the art.

For the Mihigan Farmer.

Grafting.

Mr. Editor:—As the season for grafting is approaching, it may not be amiss to make a few suggestions upon the subject, for the purpose of inducing our farmers to do their own grafting. The time was, when the art and mystery of grafting was known only to the few initiated ones. Although this time has gone by, still there are but few of our farmers that seem to think that they can do their own grafting; and rather than make the attempt through fear of a failure, content themselves with such fruit as the natural tree gives them, or employ at an enormous price, a professional grafter to do what they can do equally well themselves. The process of grafting involves no mystery, but is plain

and simple. As the object to be attained by grafting, is to secure the best quality of fruit, four things are to be observed. First: scions should be selected of the very best kinds that can be obtained, so as to give a succession of fruits the year round. Second: the scions should be cut before the buds begin to swell in the spring. Third: they should be set at a proper time and in a proper manner. Fourth: after the scions are set, they should be properly and thoroughly protected.

First: it is the usual practice with farmers to select their scions from neighboring orchards, or when they employ a professional grafter, to require him to furnish them. Whoever takes either of these courses, will subject himself to sad disappointment. But few farmers know the names of the cultivated fruit they may chance to have in their orchards, and those few have frequently cultivated what they have, under false names, many of which are unknown to the public at large, and many of them are of but third and fourth rate quality. Then again, mistakes are frequently made by taking the scions from the wrong trees, as few farmers have their grafted trees marked. In proof of this, the writer would state, that in his inexperienced days, he selected his scions for grafting from some twenty large trees, from an orchard which he knew contained many of the choicest kinds of apples; but when they came into bearing, he found to his sorrow three to bear fruit that was neither fit for eating or cooking, and some three or four others that were so decidedly inferior to many others, that he has had to re-graft them, thus losing the profits of these trees for four or five years. Rather than run such risks, it would be far better to go fifty, or even a hundred miles and purchase scions of some nurseryman of established reputation. If your means are limited, select of the varieties wanted, sufficient to engraft a single tree of a kind, which will, in a year or two, furnish scions sufficient to engraft the residue of the orchard. Second: scions may be cut from November to March or April. After they are cut, some six or eight inches of the butts should be buried in the ground, leaving the tops out. They should be buried in some dry spot so that no water will settle around them.

In the fall, before the tree commences its state of rest for the winter, it elaborates a sufficient amount of sap, which is diffused throughout the tree, and carried to the extremities of the limbs. Any time after this is done, the scions may be cut, and as a general rule it is better to omit setting them, till the buds upon the tree intended to be grafted, begin to put forth, and the scions may be set any time after this, so long as they can be kept fresh and in a state of rest. If the scions should become shrivelled and dry, they may frequently be resuscitated by soaking them in water some twenty-four hours. When scions are to be kept for late grafting, they must be removed to a cool dry cellar and covered with sand. If through neglect, or any other cause, the scions should begin to push their buds, they should be set at once, as all attempts to force them back into a state of rest will be to destroy their vitality.

Third: when the stock is large, cleft grafting is the most usually practiced; and, on the whole, is the one to be preferred, as the scions are less liable to be thrown out by the winds. The stock or limb to be grafted should be cut off horizontally with a fine saw, and pared smoothly with a knife. Then split the stock through the centre, about two inches, with a grafting knife or chisel. After the knife is removed, the split should be forced open by driving a wedge in the centre. The scions should contain three buds, and the lower end to be cut wedge form, so that the stock, when the wedge is removed, will press equally upon every part of the scion that is inserted. This should be carefully attended to. The inner edge of the scion should be cut a little thinner than the outer one, on which should be left the lower bud of the scion. One thing more is carefully to be observed, as upon its observance will depend the success. The scion should be so inserted that its inner bark shall be made to meet exactly the inner bark of the stock—to make this sure, it is the practice of many experienced grafters, and one we have practiced with uniform success, to give the scion an oblique direction, so that the inner side of the inner bark of the scion shall meet the outer side of the inner bark of the stock at the top, and *vice versa* at the bottom. When the stock is sufficiently large to admit of it, two scions should be inserted. Fourth: after having carefully attended to the above directions, one thing more is necessary to success, and that is, to protect the wound from the influence of the air. Grafting wax is the neatest and to be preferred to any other covering. That most commonly used, is made of equal parts of rosin beeswax and tallow. After the materials are melted, the mass should pe poured into water, and thoroughly worked with the hands, till the ingredients become amalgamated, and the whole mass becomes soft and pliant. Should it be found too hard or too soft, it may be tempered by adding a little rosin or tallow. It should be sufficiently hard to resist the heat of the sun. The wound should be covered with a thick coat of wax, which can be laid on in a fluid state with a brush or swab, or by softening it in warm water it can be laid on by the hand. This should be thoroughly done, and it would be well carefully to examine the grafts during the summer, and give them an additional coating of wax should they need it.

(To be continued in next No.)

The Humbugger Unmasked—The Melon Blight, Cause and Remedy.

We recently enclosed a number or two of the Michigan Farmer, to a very intelligent farmer in St. Joshephs Co. who was not a subscriber. In return, we received the following valuable communication, enclosing a year's subscription for the Farmer. It will be seen, that it has been found out at last, that those who cry out "Humbug!" so lustily against agricultural papers, are themselves the true humbuggers. For a discovery of the cause of the vine blight, and a remedy for it, every lover of those delicious esculents (and who is not such a one?) will be laid under obligations of gratitude to the author, to say nothing of the value to them of a publication through which they may learn from each other, things so important to their prosperity and happiness.

CONSTANTINE, Feb, 29, 1848.

MR. ISHAM,—Sir—I have just received your Farmer of the 15th, it is the first I have seen, and I find that I have been humbugged by those who said it was a worthless paper, nothing but a catch-penny. It is truly an interesting publication, and is in every respect qualified, to improve the state of agriculture in our country; yet I believe as much as any one, that there is a vast amount of information, to be gathered from our own experiance and practice; as well as from the experiments of others, which nobody disputes, I trust.

I observed in yours of the 15th, a statement concerning the melon blight, with a request that some one would advance their opinion upon this subject, I therefore forward you my sentiments thereon. A case of my own was precisely of the same nature. My vines did very well till the fruit was quite large, when I observed one morning, that one hill (of which I had about one hundred,) was wilted, and at evening it was past hope. Several others followed suit, and for a remedy (or as I believed it to be) I went to a small reservoir I prepared for the purpose, near the barnyard, and dipped up a pail of the liquid manure, and drenched every hill. In the morning I did the same, and once a day for eight or ten days. I lost no more melon vines, but the *varmints* proceeded to attack the squashes, for which I did the same, with perfect success. I found upon examination that the tap root was cut off by a worm which ascended the pith till near the surface, when it escaped. I became confirmed in this belief, after examining a fresh one, for it was white inside, whereas the former was of yellowish cast. This remedy was not only the salvation of the vines, but it was of lasting benefit, for such an astonishing difference was almost incredible: they grew like mushroons.

Being a common farmer I feel rather *peculiar* in holding forth to the public in this matter and should be very much gratified to hear from others who have practised any other method with success. G. B. S.

From our Scientific Correspondent.

We thank * for the following pertinent exposition of some of the more important elementary terms in chemistry. We hope he will extend the list still further, and then branch out into the open fields, to the confines of which he will thus be conducted, and in which he has already given us an account of one of his rambles. We repeat that * is a practical farmer in the woods of Michigan.

For the Michigan Farmer.

CHEMICAL AND SCIENTIFIC WORDS USED IN AGRICULTURE.

Gas, an air. The principal gasses are:

1. *Oxygen*, a gas like air in its ordinary character, but remarkable for the brilliant manner in which all kinds of combustible matter burn in it. It may be breathed with safety, but it causes all the functions of the animal system to be carried on with great vigor and rapidity, so much so that an animal breathing pure oxygen would soon be destroyed. It has a strong attraction for most other elements, and combines with them to form various compounds: as common rust is an oxide of iron, or oxygen and iron combined. It forms a constituent part of com mon air.

2. *Nitrogen*, another constituent of common air, extinguishes flame, and cannot support the burning of any substance, it cannot be breathed; suffocating animals if they attempt to breathe it pure; and having little affinity for other elements.

3. *Hydrogen* cannot support respiration. It is the lightest substance in nature; and owing to this principle is used, either pnre, or in combination, to fill balloons. It is highly combustible, but does not support combustion; while at the same time it is one of the most inflamable

of bodies. *Water* is a compound of the two gasses, oxygen and hydrogen.

Carbon—Charcoal. In its crystalized, pure state it forms the *diamond.* It composes a large portion of all plants and animals, and is the chief basis of coal.

Carbonic Acid, Gas. Carbon and oxygen, in the form of a gas, *fixed air.* It is found in fermented liquors, as cider and beer, in limestone and magnesia, in the air; whence plants principally derive their supply of carbon, and it is expelled from the lungs in breathing. The chief use of ploughing under green crops for manure consists in this, that the carbon of plants, combining with the oxygen of the air, forms carbonic acid gas, which is essential to vegetable growth, and is thus prepared ready for reception. Plants inhale this gas during the light, and exhale it in the dark.

Oxalic Acid. A poison found naturally in many plants; it is composed of oxygen and carbon, but in different proportions from carbonic acid.

Ammonia, an alkali, composed of nitrogen and hydrogen gasses.

Sal-volatile—Hartshorn. It is always formed when animal or vegetable bodies containing nitrogen are rotted; and to this with carburretted hydrogen, is owing the unpleasant smell arising from decayed animal matter. It is found in various forms of combination, united with various acids. The air contains a portion of it; and rain water appears never to be free from it. It is absolutely necessary for the growth of plants, which principally derive it from rain: and when it is abundant, as in a thunder shower, after long continuance of dry weather, the effect on vegetation is very conspicuous. To this alkali, barn yard manures owe much of their value; but as, in its chief form, it readily escapes into the air, manure much exposed to wet and air, decreases in value. Plaster, and green vitriol fix ammonia; urine contains a large proportion of its salts, as also guano.

Sulphur—Brimstone. A mineral, chiefly found in the neighborhood of volcanoes. It enters into the composition of animals, as in the hair, horns, hoofs, &c., and into nearly all plants and seeds, as sulphuric acid (sulphur and oxygen) in combination with a base. Some of them contain a large proportion of it.

Sulphate of Lime—Plaster. Sulphuric acid and lime; a mineral found in most parts of the world, and extensively used in the arts and for manure. In the latter case, it acts by the sulphuric acid combining with and fixing the volatile ammonia, and supplying lime in the finest possible powder to the plant. Thus, plaster will always act most effectively on lands previously manured with animal substances.

Chlorine. A gass never found free, but in combination with some other element. It is remarkable for possessing the powers of bleaching, or destroying colors, and also impure smells and contagious matters.

Muriatic Acid. A combination of chlorine and hydrogen gas—a strong acid, forming various salts called muriates. Spirit of salt.

Chloride of Sodium—Common Salt. Chlorine and the element sodium; or muriatic acid and soda: an element entering to a greater or less degree into all vegetation, and necessary for healthy existence in animals.

Chloride of Lime. Chlorine and lime, possessing a powerful cleansing effect on damp cellars, &c.: seeds steeped in a weak solution of this, are said to grow with peculiar luxuriance. The same is one of the best cures for musquito bites.

Phosphorus, in several respects resembles sulphur; like it, it is a readily fusible, and very combustible solid. It is of a white color, about as hard as wax, and has so strong an affinity for oxygen that it takes fire in the air with the greatest facility, when slightly warmed. Its most important compound is phosphoric acid. It is all important in animal life, bones being composed of phosphate of lime; and in proportion in which this is contained in the food, the animal will be large or small. So likewise, it is absolutely necessary in cultivated grain; of which wheat contains the most. *Bran* is chiefly a phosphate of magnesia, (phosphoric acid and magnesium) and as such is valuable in feeding young and growing animals. It exists naturally in the soil, but in small quantities, so that a field constantly grown in wheat soon exhausts it, and the plant cannot flourish. Wood ashes contain much of it, the beach and pine more than the oak. Red and white clover abound in this element: one reason for their forming so valuable a manure for wheat, and for their being generally found flourishing on the best wheat lands.

Alkalies, a class of substances called bases, or elements, with which acids combine. The commonest and most important are,

1. *Potash.* It never occurs pure in a free state; its most abundant source is the vegetable kingdom and some rocks; and the simplest method of procuring it is by burning wood. In this form it is an impure carbonate of potash.—When free from any acid it is a very caustic solid substance. It is a compound of a metal, *potasium*, and oxygen.

2. *Nitrate of Potash—Saltpetre.* A compound of potash, and nitric acid. It is found in many places as a white powdery matter on the surface of the ground, and is procured pure by washing the earth, and evaporating the solution of nitre thus obtained. It is also manufactured. The soft earth accumulated under old barns and stables often contains a large quantity of this;

XUM

and is an excellent manure for the peach tree. In Europe saltpetre is extensively used as a top dressing to crops.

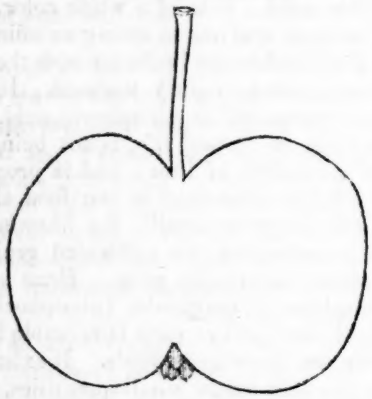
3. *Soda.* In its general character it resembles potash, being a compound of metal, *sodium* and oxygen.

4. *Nitrate of Soda.* Cubic Nitre and often sold as saltpetre, is found in South America, and is extensively used as a manure.

5. *Carbonate of Soda.* The common soda of commerce, formerly procured by burning sea weed, but now generally manufactured from salt.

6. *Sulphate of Soda.* Glauber saults, may be beneficially used as manure, and is one of the best medicines for hogs.

These two alkalies, in one shape or another, enter largely into all vegetation, and none of the useful cultivated plants are without them: land deficient in the alkalies is barren, and the destruction of these is the cause of failure of the tobacco lands in Virginia.



The above cut is a tolerable representation of three diffenent apples. It is an exact representation of an apple raised by Calvin Baker of Lockport, N. Y. who has five or six trees of the kind, and the only ones known to exist. The Prairie Farmer says it is preferred to any fruit in the Chicago market. It is nameless.

Early Joe. By cutting off about half the stalk of the above, you have a good representation of the Early Joe, a very popular apple which ripens in August. Mr. J. C. Holmes of this city expects a supply of trees of this variety from Rochester for spring planting.

The Lady Apple. By enlarging the stalk a little and taking off two thirds of its length, you have, in the above cut, a very good representation of the Lady Apple — an exquisite little dessert, says Downing, the pretty size, and beautiful color of which render it a universal favorite; as it is a great bearer, and therefore profitable, bringing the highest price of any fancy apple in the market. Flesh white, crisp, tender and juicy, with a pleasant flavor. This last, we believe can be procured at the nurseries of Charles Hastings Esq., of Troy, and Messrs Lays, Ypsilanti.

NEW INVENTIONS.

A Harvesting Barrow.—The Democratic Pacifique notices a newly patented harvesting machine, invented by Adolphe Nouviaire, of Langwy, Moselle, which it says will supercede the use of the sickle on the Continent, and make an immense saving not only of labor but of the grain, much of which is now lost by the weather in the slow mode of harvesting. This machine it calls the Harvesting Barrow (*Brouette moissonneuse.*) "A single man," it says, "propels with ease the harvesting barrow on all fields whatever unevenness they may present. The impulsive force which he gives it, passing directly from the wheels to the cutters, causes them to cut the grain stalks and any parasitic plants that may be mixed with them. Its work is wonderfully perfect—the stubble is cut short and at an even height, and what is very important, is that it can be repaired by the common wheelrights and blacksmiths of a village: and besides, the sharpening of the blades can be done by the workman himself as easily as he sharpens his scythe."

In regard to the above invention the Chronotype justly remarks:—Is it not wonderful that Yankee ingenuity had not invented a thing so obviously practicable and so immensely useful? Our inventors have all been looking to expensive machines to be propelled by horse power, to be employed only by large capital, and thus far have met with so little success that our art of harvesting cannot be said to have got beyond its *cradle.*

A Substitute for a Door Spring.—An invention called the "Adjustable Incline Plane Door and Gate Butt," was patented by Thomas Peck, of Syracuse, N. Y., in April last. Though superior to anything in the shape of a door spring, there is in fact no spring about it. The contrivance combines strength, simplicity, and certainty in operation in a remarkable degree. On the casing of the door is fixed a scroll, whose upper edge is an inclined plane, and on the door is fastened a friction roller, which, as the door opens, runs up the inclined plane, raising the bottom of the door above the carpet or mat. Upon reaching the top of the scroll, the roller drops into a small indentation, or reversed plane; and there rests, thereby holding the door open. By a slight pressure, a reverse motion is given to the roller; it runs up the short indention, and then the weight of the door draws the roller gradually down the inclined plane, till it reaches an indentation at the bottom, and by falling into it causes the door to shut close and snug. The hinges turn on pins, which admit of the rising and falling of the door, when not closed. The door can be made to sit tight upon the threshold, so as to be almost air-tight. The butt may be applied to a gate with the same effect. The simplicity of its structure renders it very cheap. [*N. Y. Mechanic.*

GENERAL INTELLIGENCE.

Legislature of Michigan.—The joint resolution proposing an amendment to the Constitution relative to the elective franchise, has passed the House. The amendment strikes out the word *white.* The vote stood 35 to 18. The homestead exemption bill appears to be making progress towards its final passage, which it may reach in an amended form. The Senate has passed bills chartering companies to construct railroads from Pontiac to Flint, und from St. Joseph through Cassopolis to a point in St. Joseph county. The general plank road bill has also passed. Under the provisions of this bill, any company or individual may construct plank roads any where in the state. A bill has also passed the Senate amending the tax laws, providing that deeds given for land bid off by the State, shall be prima facie evidence of title.—A bill has been passed appropriating ten sections of the Salt Spring lands to the erection of a Scientific Observatory, under the auspices of the Detroit Young Men's Society. Not far from a hundred and forty thousand acres of land have been, or are proposed to be, appropriated to purposes of internal improvement in the different counties, to be expended upon roads, rivers, bridges, marshes, &c.

☞ Detroit being now in Telegraphic communication with New York, Washington, &c.; we are in daily receipt of intelligence from those places. The line of Telegraph now extends eastward to Portland, Maine, southward to New Orleans, northward to Montreal, and westward to Detroit, and as far into the interior as Jackson, and it will soon be completed to Milwaukie.

The Treaty Ratified.—A Teleghaphic communication annonnces the ratification of the treaty, 39 senators voting for and 14 against it. It was probably modified. The President has signed and despatched it to Mexico.

Treaty Commissioner.—By Telegraph, we have Washington dates to March 13th. Mr. Sevier has been appointed a special commissioner, by the Senate, to proceed to Mexico, to negotiate, and finally close a Treaty, being armed with full powers.

Digby V. Bell has retired from the office of Auditor General, to take charge of the Central Railroad as agent, and John J. Adam has taken his place.

The steamboat Frolic has exploded on the Illinois river, causing the loss of several lives.—Four steamboats and barges, have been destroyed by fire at St. Louis. The stables of the Harlem railroad in N. Y. city have been consumed by fire, together with 57 horses.

A young lady in Cincinati, died recently from the effects of chloroform, supposed to have been too freely and too suddenly inhaled. One or two other similar cases have occurred.

Congress.—The prospect of peace has brought Congress nearly to a stand upon the great subjects which have mainly occupied its attention through the session. It is even said, that the President and his Cabinet, are adverse to the passage of the ten regiment bill. Mr. Miller, of New Jersey, presented to the senate, resolutions of the Legislature of N. Jersey, sustaining the action of the great river and harbor convention, and praying congress to take measures to carry out the views of that convention, which were referred.

In the House, Mr. Clingman offered a resolution in favor of selling the public lands to actual settlers for fifty cents an acre, and providing against the extortion of speculators.

Mr. Murphy presented a petition from citizens of Brooklyn in favor of giving the public lands away to actual settlers in limited quantities. In Senate Mr. Webster presented a petition from Virginia, requesting that the proceeds of the public lands be appropriated to the abolition of slavery, by the purchase and manumission of female infant slaves.

John Quincy Apams is said to have kept a diary, in which he recorded the events of every day as they came under his observation, with his own reflections and remarks upon them. It is said to contain matter for several volumes, and it is proposed, that Congress take measures to give to the world the rich stores of varied knowledge which has thus been bequeathed to his country by an American statesman whom all parties delight to honor.

The democrats of Pennsylvania have nominated Mr. Buchanan for the Presidency, and the democratic members of the Massachusetts legislature, have nominated Levi Woodbury, of N. H. There are demonstrations in various parts of the country, in favor of Gen. Taylor for the Presidency.

Foreign.—By the last arrival, the market intelligence was favorable, there being rather an upward tendency. In England and on the Continent, commercial affairs appear to have passed the crisis, and were settling down upon a solid basis, only one failure having occurred since the previous arrival. It was, however, large, being for something like a $1,000,000. There has been a sort of revolution in Sicily. The King succumbed to the people, and granted a constitution to his subjects. The Queen of Spain still lingers The same tale of woe continues to come from Ireland. The Arch Bishop of Canterbury, the Primate of England, is dead. The duty on flour imported to Great Britain, is said to be about three shillings per barrel, since the restoration of the corn laws.

A steamboat (The Yalabusha) loaded with cotton, was recently destroyed by fire on Red River. Thirty-five passengers perished.

Santa Anna has applied to Gen. Scott for a passport to leave Mexico, which was granted.

XUM

An Accession to Michigan Agriculture.—An individual who has occupied the gubernatorial chair of the state of New York, called at our office a day or two since, to pay a year's subscription for the Michigan Farmer, and ordered it to be sent to Kalamazoo, four miles below which place, on the river, he has a farm. He designs to introduce improved stock, and made special inquiries for the sub-soil plow, and other improved implements of husbandry. He believes in progress. It was Governor Throop. He will reside a part of the time in Michigan, and the other part in the state of New York.

Delicious.—Mr. J. C. Holmes of this city (of the firm of John Palmer and Co.,) a day or two since presented us two or three clusters of the Isabella grape, the product of his nursery in the neighborhood of the city. They were delicious, having all the freshness and flavor they had when plucked from the vines. Mr. H. promises an account of his mode of keeping them for the next Farmer. It is preferable to that recommended in the last Farmer from the Albany Cultivator.

Mr. Isham—I opened my letter, to slip in this little article, which I copied from the Philadelphia Saturday Courier. To measure hay in the mow, or stack, "Multiply the length, breadth, and heighth, into each other, and if the hay is some what settled, ten solid yards to a ton.

Clover will take from eleven to twelve yards to the ton."

Yours &c., T. B.

Fair at Buffalo.—T. C. Peters Esq, of Buffalo, in a letter to the Editor, says "I hope the people of Michigan, will take an interest in our next fair, which is to be held in this city. We shall make a liberal list of foreign stock. As soon as the list is published, I will send you a copy."

We trust the farmers of Michigan, will come forward.

☞We are compelled to issue a part of our impression this week on inferior paper, which mortifies us a little.

☞A number of valuable communications are necessarily laid over for our next number.

To cure Swellings, Calice or Bruises.—1 oz. camphor, 1 oz. hartshorn. 1 oz. laudanum, 1 oz. origanum, 1 oz. sweet oil, 1 oz. spirits turpentine, 1 pint alcohol. It should be well rubbed in.

A Large Cow.—A cow fatted by Mr. Irish, in the neighborhood of Pontiac, was recently slaughtered in this city, which weighed as follows, viz., quarters, 814 lbs, tallow 149 lbs, hide 100 lbs, making, 1063 lbs. The weight of the living animal was 1490 lbs.

Back Volumes of the Farmer.

Volumes IV and V, neatly put up in pamphlet form, for sale at 50 cents a volume. They can be forwarded by mail or otherwise, as may be directed. Address H. Hurlbut, Detroit.

TERMS.—The Michigan Farmer is published at Detroit, twice a month, by Warren Isham, at one dollar a year in advance—after three months $1 25—after six months $1 50—after nine months $1 75. No subscription taken for less than one year, nor discontinued till all arrerages are paid. To clubs, five copies for four dollars.

Office, on King's corner, third story.

Market Intelligence.

DETROIT PRICE CURRENT.

Flour, bbl.	$4 75	a$5 00		Salt,	$1 25	a$1 50	
Corn, bus.	37½	a 40		Butter,	15	a 20	
Oats,	22	a 25		Eggs, doz.	10		
Rye,	31¼	a 35		Hides, lb.	3	a 7	
Barley,	56	a		Wood, cord,	2 25	a 3 00	
Hogs, 100 lbs.	3 00	a 3 50		Wheat, bus.		1 00	
Apples, bush	50	a 60		Hams, lb.	6	a 7	
Potatoes,	35	a 44		Onions, bu.	41	a 50	
Hay, ton,	8 00	a10 00		Cranberries,		a 1 25	
Wool, lb.	22	a 28		Buckwheat 100 lbs.		1 25	
Pig iron, ton,	35 00	a40 00		Indian meal, "		75	
Coal, Leh.	11 00	a13 00		Beef, do	2 50	a 3 50	
do Ohio,	4 00	a 5 00		Lard, lb. retail,		08	
Peas, bu,	50	a 62½		Honey.		10	
Beans,	75	a 80		Apples, dried,		1 75	
Beef, bbl.	5 00	a 6 00		Peaches, do		a 2 50	
Pork,	8 00	a10 00		Clover seed, bu.		5 00	
White fish,	6 00	a 7 00		Herd's grass do do		1 00	
Trout,	5 50	a 6 00		Flax do		75	
Cod fish, lb.	5	a 5¾		Lime, " bbl		75	
Cheese,	6	a 7½					

FURS.

R'coon p'me large,	44	a62½		Red Fox no 1	1 25		
do do small,	31	a50		Grey do no 2	37½		
do no 2	12	a25		Wild cat no 1	37½	a50	
Mink no 1	37½	a50		do 2	25	a30	
M'sk rat p'me	9	a10		Otter no 1	3 00	a3 50	
do no 2	6	a7		Martin no 1	1 12	a1 25	
Deer red per lb	16	a18¾		Fisher no 1	1 25	a1 75	
do grey do	10	a12½		Bear no 1	3 00	a4 00	

PETERS'

BUFFALO WOOL DEPOT,

SECOND YEAR.

I have established a Wool Depot upon the following plan: *First*, The Wool is thrown into 10 sorts; Merino wool being No. 1, the grades numbering down from 1 to 5; the coarsest common wool being No. 5. Saxony wool is thrown into extra, and prime 1 and prime 2.—Combing and De Laines make 2 sorts more. *Second*, I charge for receiving, sorting, storing, and selling, one cent per pound; this includes all charges at Depot, except insurance. *Third*, Sales are made for cash, except when otherwise directed by owner.

☞All wool consigned to me should be marked with the owner's name.

Warehouse corner Washington and Exchange streets.

Buffalo, Jan. 1, 1848. T. C. PETERS.

Printed by Garrett & Geiger, at their Job Printing establishment, corner of Jefferson and Woodward Avenues, over King's store, Detroit.